# BROADBAND IN NEVADA

## Presentation to the Nevada Health Information Technology Blue Ribbon Task Force

## November 13, 2009

**Todd Radtke, Chairman**
**Nevada Broadband Task Force**

# AGENDA

- Introductory Remarks
- ARRA Broadband Stimulus Overview
- Nevada Broadband Task Force
- Broadband as it relates to HIT/HIE

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## CIO – NEVADA RURAL HOSPITAL PARTNERS (NRHP)
## CHAIRMAN, NEVADA BROADBAND TASK FORCE

- 25 years of IT experience.
- Joined NRHP in 2002 – members were using dumb "VT100" terminals and had **NO** LANs, WAN, email, and web presence. We have come a long way!
- Commitment by NRHP to support HIT initiatives to 14 rural community hospitals in the state
- NRHP has obtained and implemented over $2.2 million in HIT grants since 2002

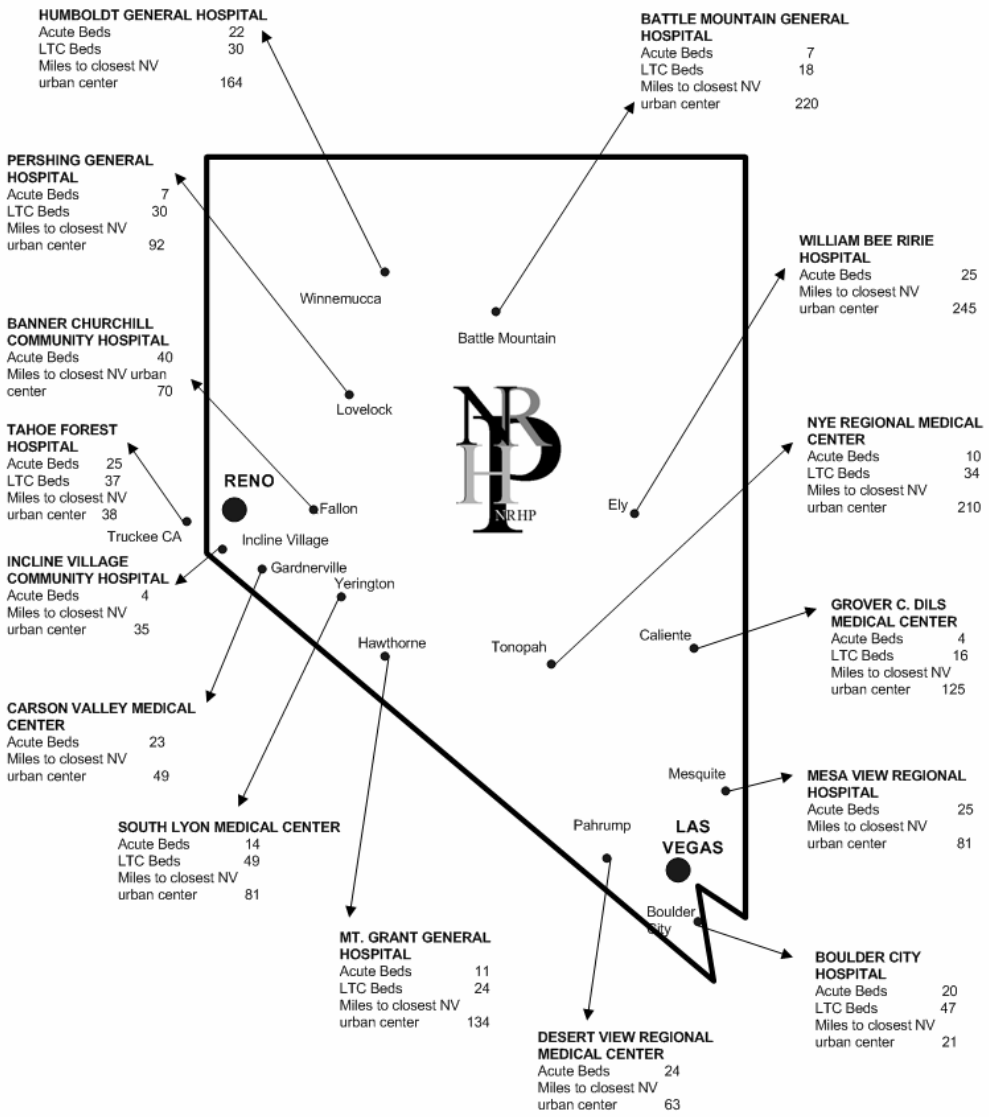
# KEY NRHP MILESTONES

- 2003 HRSA grant – HL7 integration of disparate systems. NRHP operates a Orion Rhapsody interface engine, which is the foundation of an HIE.
- NRHP owns an unlimited license for this product, which could be expanded to support the HIE for the state.
- Over 28 million HL7 messages are processed annually, between 20 separate clinical systems
  - Example: patient demographics and billing information are sent back and forth between the admitting system and clinical systems which reduces data entry errors and increases productivity
- Utilization of the NevadaNet ( WAN ) to interconnect NRHP members and support shared applications such as HL7, risk management, credentialing, telemedicine and a PACS radiology archive

# NRHP 2009 CONSORTIUM MAP

**TOTAL AREA SERVED: 95,000 square miles**

**POPULATION SERVED: 321,000**




# NRHP HIT GOALS

- Support systems that enhance our members' viability and the quality of care
  - Implement EHRs in 8 member facilities
  - Implement HIT that supports change
  - Enable HIE participation
- Guide NRHP members toward meeting meaningful use requirement
- Ensure the Wide Area Network ( WAN ) broadband infrastructure has the capacity, redundancy, and data prioritization to meet the HIT needs of rural hospitals

# ARRA BROADBAND STIMULUS OVERVIEW (www.BroadbandUSA.gov)

- $2.5 billion Broadband Initiatives Program (BIP), through the USDA Rural Utility Service (RUS), for broadband infrastructure projects in rural areas

- $4.7 billion Broadband Technology Opportunity Program (BTOP), through the US Department of Commerce National Telecommunications and Information Administration (NTIA), for broadband infrastructure, public computer centers and sustainable broadband adoption projects

# RUS BROADBAND INITIATIVES PROGRAM (BIP)

- Service areas must be at least 75% Rural
- Loan & loan/grant combinations
- Projected funded in 1st round = $2.4B or 96% of the total funding
  - Infrastructure: Last mile $1.2B
  - Infrastructure: Middle mile $800M
  - National Reserve $325M

# NTIA Broadband Technology Opportunities Program (BTOP): Purposes

- Provide broadband access to unserved and underserved consumers
- Provide broadband education, awareness, training, access equipment, and support to community anchors
  - Schools, libraries, higher education
  - **Health care providers**
  - Organizations that encourage broadband use by vulnerable populations
  - Job-creating strategic facilities in designated economic zones
- Improve access to, and use of broadband service by public safety agencies
- Stimulate the demand for broadband, economic growth, and job creation

# NTIA ARRA Funding

- BTOP includes:
  - At least $200M for computer centers
  - At least $250M for broadband adoption
  - Up to $350M for broadband mapping
- Projected funded during 1st round = $1.6B (64% of total)
  - Infrastructure for unserved & underserved areas – $1.2 B
  - Public computer centers – $50M
  - Sustainable broadband adoption – $150M
  - National reserve – $200M
- 20% matching funds required (investment funds or in-kind)
  - Up to 5% allowed for grant administrative costs pre-award
  - Waiver for the 20% match may be requested

# NTIA GOALS

- Award all grants no later than Sept. 30, 2010
- Ensure substantial project completion within 2 years

- NTIA Eligibility
  - States and political subdivisions, territories
  - Indian tribes, Native Hawaiian organizations
  - Non-profit foundations, corporations, institutions, or Associations
  - Broadband service providers and infrastructure providers, if determined to be in the public interest

# GRANT AWARD CONSIDERATIONS

- At least one grant award per state
- Determine whether the application will:
  - Increase broadband affordability and subscribership
  - Provide greatest broadband speed to most users
  - Enhance service for health care, education, or children
  - Not result in unjust enrichment
- Determine whether applicant is a socially and economically disadvantaged small business

# BROADBAND GRANT SCORING

- Scored against objective criteria, not against other applications
  - – Project purpose
  - – Project benefits
  - – Project viability
  - – Project budget and sustainability
  - – Investments – 20% match (waiver?)
- Review process
  - – Step 1 – Scored against criteria (this step was skipped in round 1)
  - – Step 2 – Due diligence
    - Request for additional information
    - Review and recommendations by State Governments
- Specific evaluation factors for each criteria, depending on application type.
- Additional consideration for collaboration with other ARRA programs or government initiatives
- Consideration given to projects utilizing socially & economically disadvantaged small businesses

# ROLE OF BROADBAND for HIT/HIE

- Understanding the relationship between telehealth, health information exchange, electronic health records and other health information technologies is critical to understanding how they, and broadband, factor into the state's plan to improve residents' health
- Secure and reliable broadband connections are crucial to making telehealth and HIE possible.
- Affordable access to broadband services is a fundamental building block in Nevada's effort to improve residents' health and reduce health care costs.

# BROADBAND AND NEVADA'S PROVIDERS

- Having broadband connectivity to all health care providers will ensure that Nevada can take maximum advantage of HIT and HIE benefits in a system that supports the right information to support the right care for the right person at the right time, improving quality and reducing duplicative expense based on "unavailable" data.
- Enhanced broadband services across the state will provide a critical component for HIT which starts with the interconnection of all of the state's hospitals and medical practices but extends to include all the health care providers across the state

# BROADBAND TO ALL PROVIDERS

- The HITECH Act definition of the term "health care provider" in Sec. 3000 includes a broad scope of providers that should be consistent with Nevada's vision for integrating all providers in statewide HIE.
- The definition includes: "a hospital, skilled nursing facility, nursing facility, home health entity or other long term care facility, health care clinic, community mental health center, renal dialysis facility, blood center, ambulatory surgical center, emergency medical services provider, federally qualified health center, group practice, a pharmacist, a pharmacy, a laboratory, a physician, a practitioner, a rural health clinic, a covered entity under section 340B, a therapist, and any other category of health care facility, entity, practitioner, or clinician determined appropriate by the Secretary."

# Nevada HIT – Vision of HIE

## Broadband is the foundation

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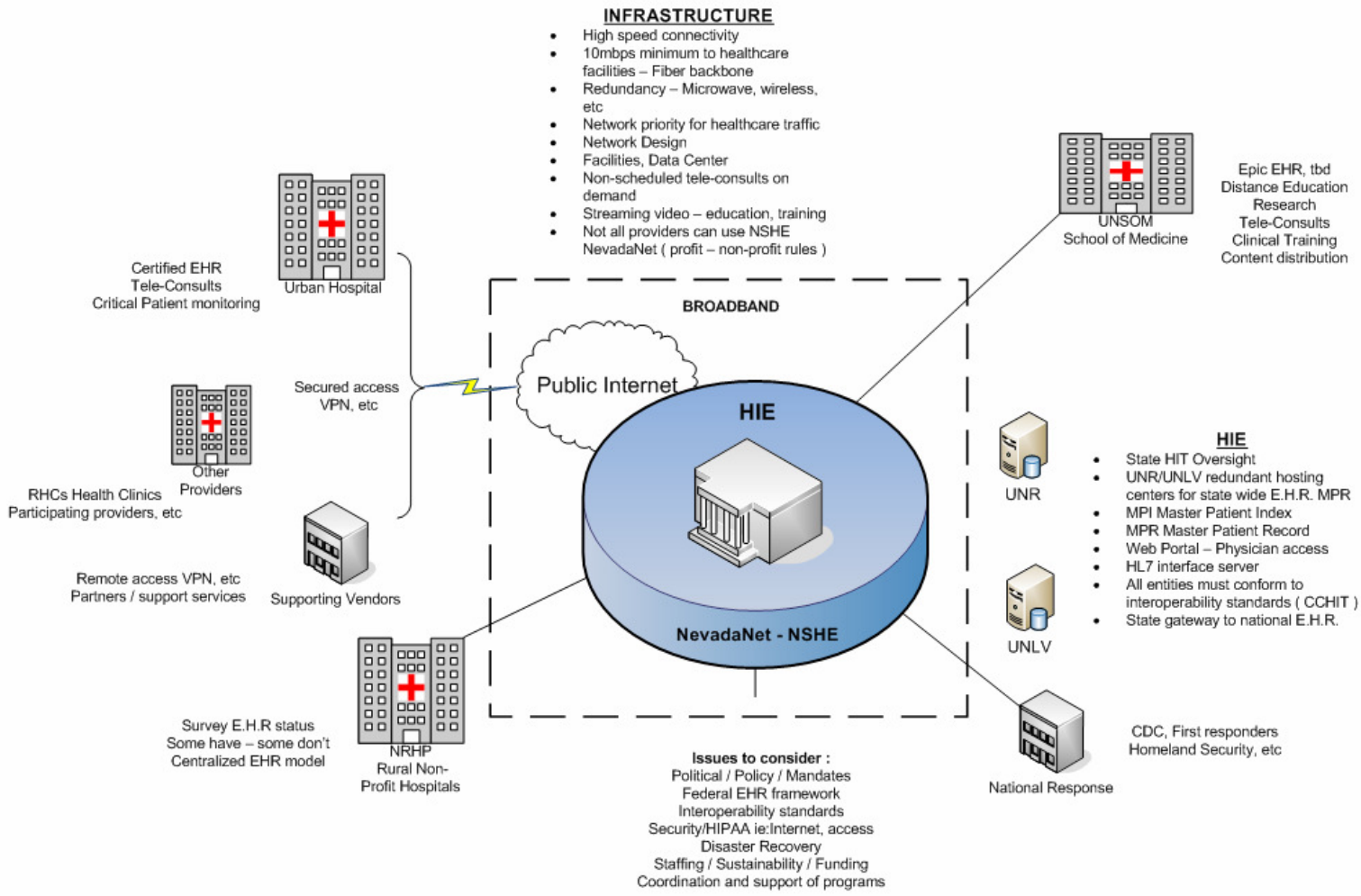



Vision or HIT from Todd Radtke – NRHP – Regional CIO

# HIT BROADBAND ISSUES IN NEVADA

- Ensure all providers have broadband capability
  - Map overlay of providers on Connected Nations map
- Security – make recommendations to secure transmission of HIE data over public internet
  - Internet – inherent issues – Quality of Service, HIPPA, support, etc (most independent providers will only have internet access to support HIE)
- Access – patients, public computing centers, home based, web portals, management, etc
- Trust – 75% of the public will not give credit card information over the Internet. How can we believe that they will want their health care information available on the Internet ?

# HIT BROADBAND APPLICATIONS CRITICAL TO PROVIDERS

- Telemedicine ( ideal bandwidth is 6-10Mbps minimum - most rural providers only have 1.5Mbps to 3Mbps )
  - Very large files consume all available bandwidth
    - Radiology
    - Psychiatry
    - Stroke Care
    - Home Monitoring
    - ePharmacy
- HIE – Health Information Exchange
  - A large number of small files
- Patient web access to health records
- Electronic billing / claims , and much more !
- In general, broadband is critical to the operation of Nevada's health care providers.
- Most providers do not have enough bandwidth to support these applications. Most 3G cell phone users have 5 times more bandwidth than rural providers with T-1 lines

# BROADBAND SPEED EXAMPLE

- Teleradiology – sending a study to a referring radiology group is common practice but the network speed is a barrier in providing services
  - Over a T-1 (1.5Mbps)
    - CT study (200Mbps) = 17 minutes
    - US study can be (1000Mbps) = 1 hour 26 minutes
  - If hospitals had a minimum of 6Mbps – (4 T-1s)
    - CT studies would transmit in 4 minutes 28 seconds
    - US studies would transmit in 22 minutes
- This example doesn't include all of the other data that a hospital needs to transmit over broadband.
- ARRA defines broadband as 768k or ½ of a T-1

# NEVADA BROADBAND TASK FORCE MEMBERS

- Task Force Chairman
  - Todd Radtke — Nevada Rural Hospital Partners (Rural health and hospitals)
- Vice Chair
  - Daphne DeLeon — Chair Nevada State Library and Archives (Rural libraries)
- Infrastructure Subcommittee
  - Hal Lenox, Chair — AT&T Nevada (Wireless industry)
  - Jeff Fontaine — Nevada Association of Counties (City / county organizations)
  - Brad Lyon — Moapa Valley Telephone (Telecommunications industry)
  - Steve Schorr — Cox Cable (Cable industry)
  - Sherry Rupert — Nevada Indian Commission (Nevada Native Americans)
- Public Computer Center Subcommittee
  - Daphne DeLeon, Chair — Nevada State Library and Archives (Rural libraries)
  - Todd Radtke — Nevada Rural Hospital Partners
  - Frank Woodbeck — Nevada Commission on Economic Development
- Sustainable Adoption Subcommittee
  - Elmer Porter, Chair — Eureka County School District (Rural K-12 schools)
  - Ed Anderson — Nevada System of Higher Education (Distance learning & higher ed)
  - David Bennett — Mesquite City Council (Local government)
  - Robert Chisel — Nevada Department of Transportation (Public safety & transportation)

# SUMMARY OF BROADBAND TASK FORCE EXECUTIVE ORDER

- Work to identify and remove barriers to broadband access
- Identify opportunities for increased broadband applications and adoption in unserved and underserved areas of Nevada
- Oversee all necessary duties and responsibilities to reach the goal to expand broadband technology including the application of federal funding/ grants, grant compliance, mapping and data management.

# BROADBAND TASK FORCE ACCOMPLISHMENTS

- Initial meeting held
- Created 3 sub-committees
  - Infrastructure
  - Public Computing Centers
  - Sustainable Adoption
- Adopted scoring criteria for each sub-committee
- Reviewed and scored Nevada's 65 applications at the request of NTIA – nationally 2200 applications were received for round 1
- Provided recommendations in each category
- Emphasis on applications that serve Nevada only

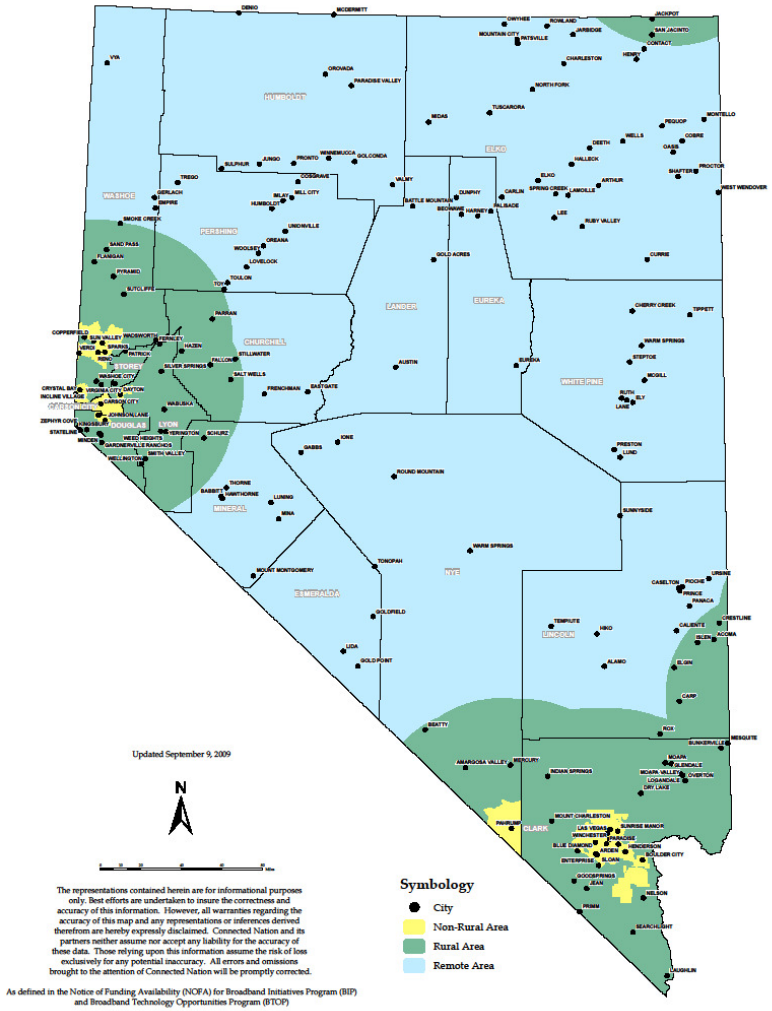
# BROADBAND MAPPING CONNECTED NATION

- Connect Nevada℠ was commissioned by the Office of the Governor to work with each of the state's broadband providers to create detailed maps of broadband coverage and to assess the current state of broadband adoption, community-by-community, across Nevada
- Connect Nevada (http://connectnv.org/index.php) is a subsidiary of Connected Nation® and operates as a non-profit in the State of Nevada
- Connect Nevada will continue to develop and update the broadband data over time, ensuring that state policymakers and citizens alike are equipped with this important information
- Connect Nevada's efforts are funded by the United States Department of Commerce's State Broadband Data & Development Grant Program through the NTIA

CONNECT Nevada

# Broadband Stimulus Eligibility of Rural and Remote Areas for the State of Nevada

Submit questions or recommended changes to: maps@connectednation.org




# NEXT STEPS

- Connected Nation – Data Mapping
  - Preliminary maps due February 1, 2010
  - Final maps due March 1, 2010
- Broadband Task Force
  - Determine meeting dates for the next 6 months
  - Schedule Connected Nation monthly updates to the Task Force
  - Comments to the NTIA – Recommend that the second round of funding be delayed until the final mapping is complete so we have accurate data to base future recommendations on
  - Review and update scoring criteria
- Develop a strategy to ensure Nevada is well served by round 2 applications, possible ideas :
  - Contact stakeholders in Nevada and encourage applications that meet the needs of community anchors
  - Collaborate with other ARRA programs applicants or government initiatives per scoring criteria